

Amendments to the Claims

1. (*Original*) A semiconductor device comprising:

- a semiconductor substrate of first conductivity type having opposed first and second major surfaces;
- a semiconductor component defined adjacent to the first major surface;
- a trench extending from the first major surface into the semiconductor substrate, having an inner side facing the semiconductor component and an outer side opposed to the semiconductor component;
- a thermal oxide filling the trench; and
- a channel stop diffusion of first conductivity type extending from the first major surface on the outer side of the trench and further extending under the trench from the outer side to the inner side of the trench.

2. (*Original*) A semiconductor device according to claim 1 further comprising a well of a second conductivity type opposite to the first conductivity type implanted into the first major surface of the semiconductor substrate; wherein the trench extends from the first major surface through the well into the substrate.

3. (*Original*) A semiconductor device according to claim 2 wherein the semiconductor component is a first transistor, the semiconductor device further comprising:

- a second transistor adjacent to the first transistor;
 - a second trench around the second transistor extending from the first major surface into the semiconductor substrate, having an inner side facing the second transistor and an outer side opposed to the second transistor; and
 - a thermal oxide filling the second trench;
- wherein the channel stop diffusion extends from the first major surface between the first and second trenches under each of the first and second trenches.

4. (*Previously Presented*) A semiconductor device according to claim 1, wherein the semiconductor component is an insulated gate field effect transistor having longitudinally

spaced source and drain implants in the well defining a channel region at the first major surface between the source and drain implants.

5. (*Original*) A semiconductor device according to claim 4 comprising a gate oxide over the channel region of the first major surface and a gate over the gate oxide, wherein the gate oxide and gate span the channel region from the trench on one side of the channel region to the trench on the other side of the channel region so that the channel region extends laterally between the trenches.

Claims 6-10 (*Cancelled*)

11. (*Cancelled*)

12. (*Cancelled*)